

This listing of claims will replace all prior versions of claims in the application.

Listing of Claims: Please amend the claims as follows:

We claim:

Claim 1. (Cancelled)

Claim 2. (Cancelled)

Claim 3. (Cancelled)

Claim 4. (Cancelled)

Claim 5. (Cancelled)

Claim 6. (Currently Amended) A polypeptide variant of major allergen Phl p 1 from timothy grass which comprises ~~an additional Cys residue compared to the wild type Phl p 1 sequence, said polypeptide variant comprising a~~ the polypeptide sequence set forth in SEQ ID NO: 2, wherein the variation comprises an additional Cys residue that has been introduced by exchange of Ala 236 in the wild-type Phl p 1 polypeptide sequence.

Claim 7. (Withdrawn) DNA molecule which encodes for an allergen variant according to claim 1.

Claim 8. (Withdrawn) DNA molecule according to SEQ ID NO 1 which encodes for the allergen variant according to Claim 6.

Claim 9. (Withdrawn) A process for the preparation of a polypeptide variant of major allergen Phl p 1 according to claim 6 comprising:

- (a) introducing a base triplet which encodes a Cys residue into a polynucleotide encoding said wild-type Phl p 1 by exchange of Ala 236;
- (b) introducing said polynucleotide of (a) into a host organism and culturing said host organism under sufficient conditions to allow expression of said polypeptide variant; and
- (c) purifying the polypeptide variant.

Claim 10. (Withdrawn) A process for the preparation and purification of a polypeptide variant of the major allergen Phl p 1 in soluble form, comprising
obtaining an insoluble crude protein according to claim 9,

denaturing said insoluble crude protein
and
further renaturing said denatured crude protein.

Claim 11. (Withdrawn) A process for the purification of a polypeptide variant of the major allergen Phl p 1 according to Claim 9 in soluble form, comprising

employing a polynucleotide which encodes a fusion protein comprising a His-tag and said polypeptide variant of major allergen Phl p 1,

expressing said His-tagged polypeptide in said host organism,

purifying said His-tagged polypeptide using two-stage metal ion chelate affinity chromatography and

removing said His tag to obtain said polypeptide variant of major allergen Phl p 1 in soluble form.

Claim 12. (Currently Amended) The polypeptide variant of claim 6 which is an LM or HM fold variant of said polypeptide of SEQ ID NO: 2 exists in various fold forms.

Claim 13. (Previously Presented) A fold form rPhl p 1-LM of the polypeptide variant according to claim 6, which is obtainable by:

- (a) overexpressing in a host organism, a fusion protein comprising the rPhl p 1 polypeptide variant and a His tag;
- (b) denaturing inclusion bodies isolated from the host organism using guanidinium chloride;
- (c) renaturing dissolved protein on a chelate affinity chromatography column;
- (d) removing the His tag;
- (e) employing gel filtration;
- (f) further purifying using chelate affinity chromatography;
- (g) isolating the target protein from the flow-through; and
- (h) further employing gel filtration.

Claim 14. (Previously Presented) A fold form rPhl p 1-HM of the polypeptide variant according to claim 6, which is obtainable by:

- (a) overexpressing in a host organism, a fusion protein comprising the rPhl p 1 polypeptide variant and a His tag;
- (b) denaturing inclusion bodies isolated from the host organism using guanidinium chloride;

- (c) renaturing dissolved protein on a chelate affinity chromatography column;
- (d) removing the His tag;
- (e) employing gel filtration;
- (f) further purifying using chelate affinity chromatography;
- (g) eluting the target protein with an imidazole gradient; and
- (h) further employing gel filtration.

Claim 15. (Previously Presented) A vaccine which comprises the polypeptide variant according to claim 6 and an acceptable carrier.

Claim 16. (Withdrawn) A method for specific immunotherapy of an allergy triggered by major allergen Phl p 1 from timothy grass comprising administering to a subject in need thereof a polypeptide variant of claim 6 or a pharmaceutical composition thereof.

Claim 17. (Previously Presented) A pharmaceutical composition comprising a polypeptide variant according to claim 6 and a pharmaceutically acceptable carrier.

Claim 18. (Withdrawn) A method for the *in vitro* diagnosis of an allergy which is triggered by major allergen Phl p 1 from timothy grass comprising administering to a subject in need thereof a polypeptide variant of claim 6 or a pharmaceutical composition thereof.

Claim 19. (Withdrawn) Recombinant DNA expression vector containing a DNA molecule according to Claim 7 for the treatment of allergies in the triggering of which the major allergen Phl p 1 from timothy grass is involved, by immunotherapeutic DNA vaccination.

Claim 20. (Withdrawn) A method for the treatment of an allergy triggered by major allergen Phl p 1 from timothy grass comprising administering to a subject in need thereof an immuno-therapeutic vaccine of claim 15.

Claim 21. (Withdrawn) Pharmaceutical composition comprising an expression vector according to Claim 19 and/or pharmaceutically usable derivatives thereof, including mixtures thereof in all ratios, and, if desired, excipients and/or adjuvants, for the treatment of allergies in the triggering of which the major allergen Phl p 1 from timothy grass is involved, by immunotherapeutic DNA vaccination.

Claim 22. (Cancelled)

- Claim 23. (Previously Presented)** The polypeptide variant of major allergen Phl p 1 from timothy grass according to claim 6 which is
- (a) a polypeptide which is encoded by a polynucleotide consisting of the sequence set forth in SEQ ID NO: 1; or
 - (b) a polypeptide which consists of the sequence set forth in SEQ ID NO: 2.